

CLAIMS

What is claimed is:

- 1 1. An apparatus for storing an identification data string used in identifying
2 characteristic of a device in a communications circuit, comprising:
3 a communications controller adapted for connection to a device and a
4 communications circuit; and
5 a programmable non-volatile memory for storing an identification data
6 string representative of the capabilities of the device.
- 1 2. The apparatus according to claim 1, wherein said programmable non-
2 volatile memory is an electrically erasable and programmable read only memory
3 (EEPROM).
- 1 3. The apparatus according to claim 1, wherein said programmable non-
2 volatile memory is programmable flash memory.
- 1 4. The apparatus according to claim 1, wherein said communications controller
2 generates a serial clock rate.
- 1 5. The apparatus according to claim 1, wherein the communications circuit is
2 wireless.
- 1 6. The apparatus according to claim 5, wherein the wireless communications
2 circuit is selected from the group consisting of infrared, Bluetooth and IrDA.

1 7. The apparatus according to claim 1, wherein the communications circuit is
2 wired.

1 8. The apparatus according to claim 7, wherein the wired communications
2 circuit is selected from the group consisting of ethernet, USB, firewire, DALI, LIN, J-1850
3 and IEEE-1451.

1 9. The apparatus according to claim 1, wherein serial data is transmitted from a
2 UART and serial data is received by the UART.

1 10. The apparatus according to claim 1, wherein said programmable non-
2 volatile memory is programmed with a first identification data string that is generic, and
3 said programmable non-volatile memory is adapted to be programmed with a second
4 identification data string that is associated with specific capabilities of the device.

1 11. The apparatus according to claim 1, wherein said communications controller
2 is selected from the group consisting of a microcontroller, a microprocessor, digital signal
3 processor, a programmable logic array and an application specific integrated circuit.

1 12. A method for storing an identification data string used in identifying
2 characteristic of a device in a communications circuit, said method comprising the steps
3 of:

4 providing a communications controller adapted for connection to a device
5 and a communications circuit;

6 providing a programmable non-volatile memory; and

storing an identification data string representative of the device capabilities.

13. The method according to claim 12, further comprising the steps of transmitting serial data with a UART and receiving serial data with the UART.

14. The method according to claim 13, wherein a portion of the transmitted serial data is the identification data string.

15. A system for communications between two or more devices, said system comprising:

first device application logic adapted for sending transmit serial data at a serial clock rate and receiving receive serial data at the serial clock rate;

a first communications controller coupled to said first device application logic, said first communications controller encoding the transmit serial data and decoding the receive serial data on a communication circuit;

second device application logic adapted for receiving the transmit serial data at the serial clock rate and transmitting the receive serial data at the serial clock rate;

a second communications controller coupled to said second device application logic, said communications controller decoding the transmit serial data and encoding the receive serial data on the communication circuit;

said first and second communications controllers having a first programmable non-volatile memory for storing a first identification data string representative of the capabilities of the first device;

said second communications controllers having a second programmable non-volatile memory for storing a second identification data string representative of the capabilities of the second device; and

wherein the first and second identification data strings are transmitted and received between the first and second devices over the communications circuit.

16. The system according to claim 15, further comprising:

a first infrared transmitter and first encoder coupled to said first communications controller, wherein said first infrared transmitter and first encoder convert first transmit pulses from said first communications controller into first infrared light pulses;

a second infrared transmitter and second encoder coupled to said second communications controller, wherein said second infrared transmitter and second encoder convert second transmit pulses from said second communications controller into second infrared light pulses;

a first infrared receiver adapted for receiving the second infrared light pulses and converting the second infrared light pulses into first receive pulses;

a second infrared receiver adapted for receiving the first infrared light pulses and converting the first infrared light pulses into second receive pulses;

14 said first infrared receiver coupled to said first communications controller;
 15 and
 16 said second infrared receiver coupled to said second communications
 17 controller.

1 17. The system according to claim 15, wherein said first and second device
 2 application logic are selected from the group consisting of a microcontroller, a
 3 microprocessor, digital signal processor, a programmable logic array and an application
 4 specific integrated circuit.

1 18. The system according to claim 15, wherein said first and second device
 2 application logic comprises a central processing unit, a random access memory and a read
 3 only memory.